Technical IGES Evaluation
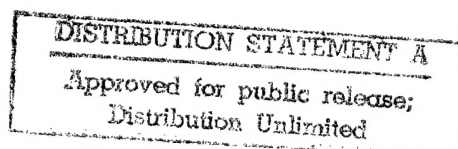
Using

SA-ALC/TIMCE Data

MIL-D-28000A (IGES)

Quick Short Test Report

12 May 1993

Prepared for

Electronic Systems Center

19960822 027

Technical IGES Evaluation

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Prepared By
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DISCLAIMER

Contents

1. Introduction

1.1 Background

The Department of Defense (DoD) Air Force Continuous Acquisition and Life-Cycle Support (CALS) Test Network (AFCTN) is conducting tests of the military standard for the Automated Interchange of Technical Information, MIL-STD-1840A, and its companion suite of military specifications. The AFCTN is a DoD sponsored confederation of voluntary participants from industry and government managed by the Electronic Systems Center (ESC).

The primary objective of the AFCTN is to evaluate the effectiveness of the CALS standards for technical data interchange and to demonstrate the technical capabilities and operational suitability of those standards. Two general categories of tests are performed to evaluate the standards; formal and informal.

Formal tests are large and comprehensive which follow a written test plan, require specific authorization from the DoD, and may take months to prepare, execute, and report.

Informal tests are quick and short, used by the AFCTN technical staff, to broaden the testing base. They include representative samples of the many systems and applications used by AFCTN participants. They also allow the AFCTN staff to gain feedback from many industry and government interpretations of the standards, to increase the base of participation in the CALS initiative, and respond to the many requests for help that come from participants. Participants take part voluntarily, benefit by receiving an evaluation of their latest implementation (interpretation) of the standards, interact with the AFCTN technical staff, gain experience using the standards, and develop increased confidence in them. The results of informal tests are reported in Quick Short Test Reports (QSTRs) that briefly summarize the standard(s) tested, the hardware and software used, the nature of the test, and the results.

1.2 Purpose

The purpose of the informal test, reported in this QSTR, was
to analyze SA-ALC/TIMCE's interpretation and use of the CALS
standards, in transferring IGES data.   SA-ALC used its CAD
System to produce data, in accordance with the standards,
and delivered it to the AFCTN technical staff on a 3.5"
disk.   The stated goal was the evaluation of the IGES file
and not the MIL-STD-1840A format.

2. Test Parameters

Test Plan: AFCTB 93-046

Date of
Evaluation: 12 May 1993

Evaluator: George Elwood
                              Air Force CALS Test Bed
                              HQ ENC/ENCP
                              4027 Col Glenn Hwy
                              Suite 200
                              Dayton OH 45431-1672

Data
Originator: Jerry Myer
                              SA-ALC/TIMCE
                              303 Industrial Park Road
                              Kelly AFB TX 78241-5932
                              (210) 925-4661

Data
Description: Technical IGES Test
                                        1 Initial Graphics Exchange Standards
                                                    (IGES) file

Data
Source System:

            IGES

                  HARDWARE
                              Unknown
                  SOFTWARE
                              Unknown

Evaluation Tools Used:

            MIL-D-28000 (IGES)
                  Sun SparcStation 2
                              ArborText *iges2draw*
                              IGES Data Analysis (IDA) *Parser/Verifier V92*
                              IDA *IGESView V3.05*
                              International TechneGroup Incorporated
                                        (ITI) *IGES/Works 1.3*
                              Rosetta Technologies *Preview V3.2*

PC 486/50

> Autodesk *AutoCAD 386 R12*
> Autodesk (MES) *Checkmark V1.0*
> Cadkey *Cadkey V5.02*
> IDA *IGESView Windows*
> Wiz Worx *IGESDRAW*

**Standards
Tested:**

MIL-D-28000A

3. 1840A Analysis

3.1 External Packaging

The 3.5" disk arrived at the Air Force CALS Test Bed (AFCTB) enclosed in a commercial mailer. The exterior of the mailer was not marked with the magnetic media warning label as required by MIL-STD-1840A, para. 5.3.1.3.

The 3.5" disk was not enclosed in an anti-static barrier bag or barrier sheet material as required by MIL-STD-1840A, para. 5.3.1.2. Enclosed in the mailer was a packing list showing all files that were recorded on the 3.5" disk.

3.2 Transmission Envelope

The 3.5" disk received by the AFCTB did not contain MIL-STD-1840A files. The files were not named per the standard conventions, as the stated propose of the test was the evaluation of the IGES file.

3.2.1 Tape Formats

File arrived on a 3.5" disk.

3.2.2 Declaration and Header Fields

No Document Declaration file or data file headers were included on this disk.

4. IGES Analysis

The 3.5" disk submitted by SA-ALC contained one IGES file. The instructions were to evaluated the file against CALS MIL-D-28000A Class II specification. Because the IGES file was small, it is included in the Appendix to this report.

A visual inspection of the file showed the lack of the CALS statement in the "Start" section per MIL-D-28000A, para. 3.2.2.4.1.

The file was evaluated using IDA's *Parser* and *Verifier* set for CALS MIL-D-28000A Class II specification. This program reported 135 errors, 5 warnings and 2 cautions while processing the file.

When a detailed evaluation of the global section was made, it was found that one index record was missing. Index record 8, the maximum power value appears to be missing. This moved all of the remaining values up one location which caused the reading systems to report errors. All of the remaining values appear to be correct.

The first error was in the global section of the file. The file called for IGES 2.0. This error was caused by the missing index value. When manually checking the value it was found to be 7, which is not permitted by MIL-D-28000A. The values should be 4-6 with the exception of Class V which must be 9.

An additional error in the global section is an incorrect value for index 5. This record shows that 37 characters should follow. The 37th character is the record delimiter comma. This caused the post-processors to lose their positions in the section.

```
,,10HEX2IGS.EXE,5H*.IGS,37HKELLY AFB TX/TIMCE/EX2IGS.EXE/VER1.0,      G      1
16HNCSI APTGEN 2.20,32,6,308,15,7HRECVSYS,1.0,1,4HINCH,32767,          G      2
3.2767D1,13H930412.130000,0.0001,1000.0,5HJMYER,5HTIMCE,7,0;           G      3
```

INDEX	VALUE	EVALUATION
1		Correct (default)
2		Correct (default)
3	EXE2IGS.EXE	
4	*.IGS	
5	KELLY AFB ...	
6	NCSI APTGEN ...	
7	32	
8	6	
9	308	
10	15	
11	RECVSYS	<Missing one record here>
12	1.0	
13	1	

```
14      INCH
15      32767
16      3.2767D1
17      930412.13 ...
18      0.0001
19      1000.0
20      JMYER
21      TIMCE
22      7
23      0
24
```

Correct Global section

```
,,10HEX2IGS.EXE,5H*.IGS,36HKELLY AFB TX/TIMCE/EX2IGS.EXE/VER1.0,        G       1
16HNCSI APTGEN 2.20,32,36,6,308,15,7HRECVSYS,1.0,1,4HINCH,32767,        G       2
3.2767D1,13H930412.130000,0.0001,1000.0,5HJMYER,5HTIMCE,7,0;            G       3
```

Several other CALS errors were reported in the global
section which were found to be correct if the additional
index value had been present and the index 5 record was
fixed.

The next reported errors are basic IGES errors relating to
the DE entries. The first error relates to a pointer in the
DE section not pointing to an associativity instance or
general note in the PD section. The entity is also blanked.

```
ERROR    2158: Negative value for associativity/text pointer at D       1.
ERROR    2060: Entity pointer (D       1) does not point to an associativity
               instance or general note at D        1.
```

 *** Entity type: 124

```
WARNING 2313: Improper definition space (defining vector magnitude not unit by
               1.230040E+02) at D        1.
ERROR    2095: Improper definition space at D       1, determinant not +1. by
               1.250000E+02.
```

```
    124         1        1                          0       01000300D     1
    124                            3        0        MX1             0D     2

124,1.0,0.0,0.0,0.0,                                             1P       1
```

The next CALS error is a lack of a drawing entity 404.

MIL-D-28000A Table II requires at least one drawing must be defined.

ERROR   4030: CALS Class II requires that at least one drawing must be defined.

 *** Entity type: 100

ERROR   2242: Radii not equal at D   19; difference is 1.230000E+02.
ERROR   2242: Radii not equal at D   21; difference is 1.230040E+02.

```
100,0.0,-0.938673,-0.589999,                                   19P    26
100,-0.813673,-0.589999,-0.813673,-0.589999;                   19P    27
100,0.0,2.954673,-0.589999,                                    21P    28
100,3.79673,-0.589999,3.79673,-0.589999;                       21P    29
```


The AFCTB has several tools for viewing IGES files. These tools are not used to generate a pass/fail but to report how commercially available software can handle the files. Many of these products are used in the development of technical publications and are good indicators of usability. The use of these products is not an endorsement nor an indication of CALS capability. All operations were performed using the default settings.

None of the IGES capable systems in the AFCTB could display the file like the provided copy.

An attempt was made to convert the file using Arbortext's *iges2draw* utility. Because of the basic errors in the file, errors were reported to the screen and no file was output.

An attempt was made to convert the file using Rosetta Technologies' *Prepare*. This program generate an error file and no output file. The error log is included in the appendix to this report.

The file was read into IDA's *IGESView* and *IGESView for Windows* without a reported error. When displayed initially the image looked like a line in the X-Y plane. The parts of the image were not exactly line up indicating that each entity was at a slightly different Z depth. By rotating the image it was possible to view the various entities making up the image. The displayed image did not look like the provide

image. Checking the IGES file the text displayed, on the provided copy, is actually the transformation matrix name and should not have been displayed.

An attempt was made to read the file into ITI's *IGESWorks*. Many error messages were generated during this procedure and nothing was displayed.

The file was converted using Autodesk's *AutoCAD R12* with 5.1 IGES translator. An extensive error log was generated. See the appendix for the log. Nothing displayed on the screen.

Autodesk's *MES Checkmark* was used to read the IGES file. Again, a large error log was generated and nothing displayed on the screen.

The file was converted using Cadkey's *ig2c* utility. An extensive error log was generated. Because of the errors, no usable output file was generated.

The file was read into the Wiz Worx *IGESDRAW* utility. This program generated an output like IGESViews first view.

The file from SA-ALC/TIMCE is not a valid IGES file. The file also had several CALS MIL-D-28000A Class II errors.

5. SGML Analysis

No Text files were included on the 3.5" disk.

6. Raster Analysis

No Raster files were included on the 3.5" disk.

7. CGM Analysis

No Computer Graphics Metafile (CGM) files were included on the 3.5" disk.

8. Conclusions and Recommendations

In summary, the 3.5" disk from SA-ALC/TIMCE did not have the required CALS Declaration file and data file headers. The defined purpose of the evaluation was not the CALS MIL-STD-1840A requirements.

The IGES file on the 3.5" disk had many critical errors in the basic format. These errors were both CALS and basic IGES errors. The global section had a missing index record and another one that was coded incorrectly. The IGES file did not meet CALS MIL-D-28000A specification.

The 3.5" disk and IGES file did not meet the CALS MIL-D-28000A Class II specification.

9. Appendix A - IGES Detailed Analysis

9.1 IGES File

```
IGES file from unbounded ANS X3.37 APT geometry definition statements,   S      1
and bounded via PC-APT/APTGEN; J.O'BRIEN MYER, version 1.0, 1993.         S      2
,,10HEX2IGS.EXE,5H*.IGS,37HKELLY AFB TX/TIMCE/EX2IGS.EXE/VER1.0,          G      1
16HNCSI APTGEN 2.20,32,6,308,15,7HRECVSYS,1.0,1,4HINCH,32767,             G      2
3.2767D1,13H930412.130000,0.0001,1000.0,5HJMYER,5HTIMCE,7,0;              G      3
        124        1        1                       0        01000300D    1
        124                          3        0         MX1           0D    2
        124        2        2                       0        01000300D    3
        124                          3        0         MX2           0D    4
        124        3        3                       0        01000300D    5
        124                          3        0         MX3           0D    6
        124        4        4                       0        01000300D    7
        124                          3        0         MX4           0D    8
        124        5        5                       0        01000300D    9
        124                          3        0         MX5           0D   10
        124        6        6                       0        01000300D   11
        124                          3        0         MX6           0D   12
        124        7        7                       0        01000300D   13
        124                          3        0         MX7           0D   14
        110        8        8        1                 1        00000000D   15
        110        0        0        2        0         LX            0D   16
        110        9        9        1                 1        00000000D   17
        110        0        0        2        0         LY            0D   18
        100       10       10        1                 1        00000000D   19
        100        0        0        2        0         DOWEL1        0D   20
        100       11       11        1                 1        00000000D   21
        100        0        0        2        0         DOWEL2        0D   22
        110       12       12        1                 1        00000000D   23
        110        0        0        2        0         STKPX2        0D   24
        110       13       13        1                 1        00000000D   25
        110        0        0        2        0         STKNX2        0D   26
        116       14       14        1                 1        00000000D   27
        116        0        0        1        0         P1            0D   28
124,1.0,0.0,0.0,0.0,                                              1P      1
124,0.0,1.0,0.0,0.0,                                              1P      2
124,0.0,0.0,1.0,0.0;                                              1P      3
124,1.0,0.0,0.0,0.0,                                              3P      4
124,0.0,0.0,-1.0,0.0,                                             3P      5
124,0.0,1.0,0.0,0.0;                                              3P      6
124,-1.0,0.0,0.0,0.0,                                             5P      7
124,0.0,0.0,1.0,0.0,                                              5P      8
124,0.0,1.0,0.0,0.0;                                              5P      9
```

```
124,-1.0,0.0,0.0,0.0,                                                  7P    10
124,0.0,1.0,0.0,0.0,                                                   7P    11
124,0.0,0.0,-1.0,0.0;                                                  7P    12
124,0.0,0.0,1.0,0.0,                                                   9P    13
124,1.0,0.0,0.0,0.0,                                                   9P    14
124,0.0,1.0,0.0,0.0;                                                   9P    15
124,0.0,0.0,-1.0,0.0,                                                 11P    16
124,-1.0,0.0,0.0,0.0,                                                 11P    17
124,0.0,1.0,0.0,0.0;                                                  11P    18
124,0.707106,-0.408202,0.577382,0.0,                                 13P    19
124,0.707106,0.408202,-0.577382,0.0,                                 13P    20
124,0.0,0.816542,0.577285,0.0;                                       13P    21
110,-3.0,0.0,0.0,                                                    15P    22
110,6.0,0.0,0.0;                                                     15P    23
110,0.0,-3.866034,0.0,                                               17P    24
110,0.0,3.366034,0.0;                                                17P    25
100,0.0,-0.938673,-0.589999,                                         19P    26
100,-0.813673,-0.589999,-0.813673,-0.589999;                        19P    27
100,0.0,2.954673,-0.589999,                                          21P    28
100,3.79673,-0.589999,3.79673,-0.589999;                            21P    29
110,4.57173,-3.866034,0.0,                                           23P    30
110,4.57173,3.366034,0.0;                                            23P    31
110,-2.41173,-3.866034,0.0,                                          25P    32
110,-2.41173,3.366034,0.0;                                           25P    33
116,0.0,-0.365999,0.0;                                               27P    34
S        2G        3D        28P        34                             T     1
```

9.1.1 Parser/Verifier Log

```
            ***  IGES DATA FILE ANALYSIS  ***
            ***          MARCH 1992         ***
            ***     IGES Data Analysis     ***
            ***       (708) 449-3430       ***

  Input file is /novell/9346/bracket.igs

  Checking conformance to CALS Class II  (MIL-D-28000A 2/10/92)

  Today is May 12, 1993   12:34 AM

  *** File and Product Name Information ***

     File name from sender    = '*.IGS'
     File creation Date.Time   = ''
     Model change Date.Time    = ''
```

```
    Author               = ''
    Department           = ''
    Product name from sender = 'EX2IGS.EXE'
    Destination product name = ''

*** Parameter Delimiters ***

    Delimiter  = ','
    Terminator = ';'

*** Originating System Data ***

    System ID            = 'KELLY AFB TX/TIMCE/EX2IGS.EXE/VER1.0,'
    Preprocessor version = ''
    Specification version = 3 (IGES 2.0)
ERROR  4048: Illegal specification version for CALS Class II specified.

*** Precision levels ***
    Integer bits =      6
    Floating point   -  Exponent =   308  Mantissa =    15
    Double precision - Exponent =     7  Mantissa =     1

*** Global Model Data ***

    Model scale          =  4.0000E+00
ERROR  4026: CALS Class II requires model scale to be 1.0.
    Unit flag            = 32767
ERROR  4051: Illegal unit flag for CALS Class II specified.
    Units                = ''
    Line weights         = 13
    Maximum line thickness = 1.000000E-04
    Minimum line thickness = 7.692308E-06
    Granularity          = 5.000000E+00
    Maximum coordinate   = 5.000000E+00


    Drafting standard applicable to original data is not specified.
ERROR  2158: Negative value for associativity/text pointer at D       1.
ERROR  2060: Entity pointer (D       1) does not point to an associativity
             instance or general note at D      1.
ERROR  2158: Negative value for associativity/text pointer at D      15.
ERROR  2060: Entity pointer (D       1) does not point to an associativity
             instance or general note at D      15.
ERROR  2158: Negative value for associativity/text pointer at D      27.
ERROR  2060: Entity pointer (D       1) does not point to an associativity
             instance or general note at D      27.
ERROR  2060: Entity pointer (D       1) does not point to an associativity
             instance or general note at D      27.
ERROR  2060: Entity pointer (D       1) does not point to an associativity
```

instance or general note at D   27.
ERROR   2060: Entity pointer (D   1) does not point to an associativity
              instance or general note at D   27.
ERROR   2060: Entity pointer (D   1) does not point to an associativity
              instance or general note at D   27.
ERROR   2060: Entity pointer (D   1) does not point to an associativity
              instance or general note at D   27.
ERROR   2060: Entity pointer (D   1) does not point to an associativity
              instance or general note at D   27.
ERROR   2060: Entity pointer (D   1) does not point to an associativity
              instance or general note at D   27.
ERROR   2060: Messages suppressed

*** Status Flag Summary ***

Blank status: Visible   7
              Blanked   7

Independence: Independent   14
              Physically Subordinate   0
              Logically Subordinate   0
              Totally Subordinate   0

Entity use: Geometry   7
              Annotation   0
              Definition   0
              Other   7
              Logical/Positional   0
              2D parametric   0
              Not Specified   0

Hierarchy: Structure DE applies   14
              Subordinate DE applies   0
              Hierarchy property applies 0
              Not Specified   0

*** Entity Occurrence Counts ***

Entity	Form	Level	Count	Type
100	0	0	2	Circular arc
110	0	0	4	Line
116	0	0	1	Point
124	0	0	7	Transformation matrix

ERROR   4030: CALS Class II requires that at least one drawing be defined.

*** Entity Count by Level ***

Level   Count
   0   14

*** Labeling Information ***

100% of the entities are labeled.

Unlabeled   0

Label	Count	Label	Count	Label	Count
MX1	1*	MX2	1*	MX3	1*
MX4	1*	MX5	1*	MX6	1*
MX7	1*	LX	1*	LY	1*
DOWEL1	1*	DOWEL2	1*	STKPX2	1*
STKNX2	1*	P1	1*		

NITPICK 2327: One or more of the flagged entity labels are not right-justified.

*** Line Fonts Used in Data ***

100	102	104	106	108	110	112	114	
-	-	-	-	-	-	-	-	Undefined
2	-	-	-	-	4	-	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

116	118	120	122	124	125	126	128	
-	-	-	-	7	-	-	-	Undefined
1	-	-	-	-	-	-	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

130	132	134	136	138	140	142	144	
-	-	-	-	-	-	-	-	Undefined
-	-	-	-	-	-	-	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom

```
-    -    -    -    -    -    -     -    Center-line
-    -    -    -    -    -    -     -    Dotted
-    -    -    -    -    -    -     -    User defined
```

*** Line Widths Used in Data ***

```
    Weight        Count      Width

 Defaulted          14       (0.0000)
```

*** Colors Used in Data ***

```
 Defaulted          14
```

```
******************************
******   ENTITY ANALYSIS   ******
******************************
```

*** Entity type: 100

```
ERROR   2242: Radii not equal at D      19; difference is 1.230000E+02.
ERROR   2242: Radii not equal at D      21; difference is 1.230040E+02.
```

*** Entity type: 110

```
CAUTION 2336: Zero length line at D     17.
CAUTION 2336: Zero length line at D     23.
   --     4 lines averaging 6.250101E+01 units --
```

*** Entity type: 116

*** Entity type: 124

```
WARNING 2313: Improper definition space (defining vector magnitude not unit by
              1.230040E+02) at D      1.
ERROR   2095: Improper definition space at D      1, determinant not +1. by
              1.250000E+02.
WARNING 2313: Improper definition space (defining vector magnitude not unit by
              1.230000E+02) at D      3.
WARNING 2313: Improper definition space (defining vector magnitude not unit by
              1.230000E+02) at D      7.
WARNING 2313: Improper definition space (defining vector magnitude not unit by
              1.230040E+02) at D      9.
WARNING 2313: Improper definition space (defining vector magnitude not unit by
              1.230000E+02) at D     13.
7 transformation matrices, 3 non-zero translations.
NOTE    2341: 3 matrices contain translation information.
```

```
   *** Message Summary ***

2013: 3 Data out of defined range.
2014: 126 Invalid entity referenced
2015: 5 Mathematically incorrect definitions.
4000: 1 Miscellaneous CALS messages
4011: 3 Problems in the Global section


   *** Error Summary ***

      0 fatal errors
      0 severe errors
    136 errors
      5 warnings
      2 cautions
      1 nitpicks
      1 notes


   *** End of Analysis of /novell/9346/bracket.igs ***
```

9.1.2   Parser Log - AutoCAD R12

```
Title: IGESIN Journal (v5.1 Nov 05 1992)
=================================================================================
File: I:\9346\BRACKET.xli
Date: Wed, May 12, 1993
Time: 12:49:59
=================================================================================


EVALUATION VERSION -- NOT FOR RESALE

Translator S/N:    117-10075750
Translating from IGES file:        I:\9346\BRACKET.IGS
          to AutoCAD Drawing:      UNNAMED.dwg


=================================================================================


Options obtained from:  default settings
Curves Approximated to Tolerance of              0.01
Surfaces Approximated to Tolerance of            0.01

Text Font/Style mapping:
IGES Text font        Style Name       ACAD Font
         0                SYMBOL0         iges0
         1                STANDARD         txt
```

2	LEROY	txt
3	FUTURA	txt
6	COMP80	txt
12	GOTHICE	gothice
13	GOTHICI	gothici
14	ROMANS	romans
17	ROMANT	romant
18	ROMAND	romand
19	OCR	txt
1001	SYMBOL1	iges1001
1002	SYMBOL2	iges1002
1003	SYMBOL3	iges1003
2001	KANJI	bigfont

IGES Linefont/AutoCAD Linetype mapping

IGES Line Font	AutoCAD linetype	Shape file
0	BYLAYER	
1	CONTINUOUS	
2	DASHED	acad.lin
3	PHANTOM	acad.lin
4	CENTER	acad.lin
5	DOT	acad.lin

==

Parse phase

*** Warning (IAFP__EXTRA_CHARS) ***
16HNCSI APTGEN 2.20,32,6,308,15,7HRECVSYS,1.0,1,4HINCH,32767,   G   2
}^
BRACKET.IGS, line 4: Extraneous characters follow field.
*** Error (IAFP__BAD_GLOBAL_FIELD) ***
16HNCSI APTGEN 2.20,32,6,308,15,7HRECVSYS,1.0,1,4HINCH,32767,   G   2
              ^

BRACKET.IGS, line 4: Error processing global section field. Field value will be
defaulted.
*** Error (IAFP__BAD_GLOBAL_FIELD) ***
16HNCSI APTGEN 2.20,32,6,308,15,7HRECVSYS,1.0,1,4HINCH,32767,   G   2
                ^

BRACKET.IGS, line 4: Error processing global section field. Field value will be
defaulted.
*** Error (IAFP__BAD_GLOBAL_FIELD) ***
16HNCSI APTGEN 2.20,32,6,308,15,7HRECVSYS,1.0,1,4HINCH,32767,   G   2
                ^

BRACKET.IGS, line 4: Error processing global section field. Field value will be
defaulted.
*** Error (IAFP__BAD_GLOBAL_FIELD) ***
16HNCSI APTGEN 2.20,32,6,308,15,7HRECVSYS,1.0,1,4HINCH,32767,   G   2

BRACKET.IGS, line 4: Error processing global section field. Field value will be
defaulted.
*** Error (IAFP__BAD_GLOBAL_FIELD) ***
16HNCSI APTGEN 2.20,32,6,308,15,7HRECVSYS,1.0,1,4HINCH,32767,   G   2

BRACKET.IGS, line 4: Error processing global section field. Field value will be
defaulted.
*** Error (IAFP__BAD_GLOBAL_FIELD) ***
3.2767D1,13H930412.130000,0.0001,1000.0,5HJMYER,5HTIMCE,7,0;   G   3

BRACKET.IGS, line 5: Error processing global section field. Field value will be
defaulted.
*** Error (IAFP__BAD_GLOBAL_FIELD) ***
3.2767D1,13H930412.130000,0.0001,1000.0,5HJMYER,5HTIMCE,7,0;   G   3

BRACKET.IGS, line 5: Error processing global section field. Field value will be
defaulted.
*** Error (IAFP__BAD_GLOBAL_FIELD) ***
3.2767D1,13H930412.130000,0.0001,1000.0,5HJMYER,5HTIMCE,7,0;   G   3

BRACKET.IGS, line 5: Error processing global section field. Field value will be
defaulted.
*** Error (IAFP__BAD_GLOBAL_FIELD) ***
3.2767D1,13H930412.130000,0.0001,1000.0,5HJMYER,5HTIMCE,7,0;   G   3

BRACKET.IGS, line 5: Error processing global section field. Field value will be
defaulted.
*** Error (IAFP__BAD_GLOBAL_FIELD) ***
3.2767D1,13H930412.130000,0.0001,1000.0,5HJMYER,5HTIMCE,7,0;   G   3

BRACKET.IGS, line 5: Error processing global section field. Field value will be
defaulted.
*** Error (IAFP__BAD_GLOBAL_FIELD) ***
3.2767D1,13H930412.130000,0.0001,1000.0,5HJMYER,5HTIMCE,7,0;   G   3

BRACKET.IGS, line 5: Error processing global section field. Field value will be
defaulted.
*** Error (IAFP__BAD_GLOBAL_FIELD) ***
3.2767D1,13H930412.130000,0.0001,1000.0,5HJMYER,5HTIMCE,7,0;   G   3

BRACKET.IGS, line 5: Error processing global section field. Field value will be
defaulted.
*** Warning (IAFP__LARGER_SGL_EXP) ***
BRACKET.IGS, line 5: IGES file contains numbers with a larger single precision
exponent than what is allowed on this system.

*** Warning (IAFP__LARGER_SGL_SIG) ***

BRACKET.IGS, line 5: IGES file has greater number of significant digits in
single precision numbers than this system.

*** Warning (IAFP__FLOAT_EXPECTED) ***
124,0.0,1.0,0.0,0.0,   1P   2
 ^

BRACKET.IGS, line 35: Integer found where floating point type was expected.
Integer value will be converted to floating point.
*** Warning (IAFP__FLOAT_EXPECTED) ***
124,0.0,0.0,1.0,0.0;   1P   3
 ^

BRACKET.IGS, line 36: Integer found where floating point type was expected.
Integer value will be converted to floating point.
*** Error (IAFP__BAD_COUNT_FIELD) ***
124,0.0,0.0,1.0,0.0;   1P   3
      ^

BRACKET.IGS, line 36: Invalid count field value.
*** Error (IAFP__BAD_COUNT_FIELD) ***
124,0.0,0.0,1.0,0.0;   1P   3
      ^

BRACKET.IGS, line 36: Invalid count field value.
*** Warning (IAFP__PD_LINE_MISMATCH) ***
BRACKET.IGS, line 37: PD line pointer does not point to proper PD card.

*** Warning (IAFP__FLOAT_EXPECTED) ***
124,0.0,0.0,-1.0,0.0,   3P   5
 ^

BRACKET.IGS, line 38: Integer found where floating point type was expected.
Integer value will be converted to floating point.
*** Warning (IAFP__FLOAT_EXPECTED) ***
124,0.0,1.0,0.0,0.0;   3P   6
 ^

BRACKET.IGS, line 39: Integer found where floating point type was expected.
Integer value will be converted to floating point.
*** Error (IAFP__BAD_COUNT_FIELD) ***
124,0.0,1.0,0.0,0.0;   3P   6
      ^

BRACKET.IGS, line 39: Invalid count field value.
*** Error (IAFP__BAD_COUNT_FIELD) ***
124,0.0,1.0,0.0,0.0;   3P   6
      ^

BRACKET.IGS, line 39: Invalid count field value.
*** Warning (IAFP__PD_LINE_MISMATCH) ***
BRACKET.IGS, line 40: PD line pointer does not point to proper PD card.

*** Warning (IAFP__FLOAT_EXPECTED) ***
124,0.0,0.0,1.0,0.0,   5P   8
 ^

BRACKET.IGS, line 41: Integer found where floating point type was expected.
Integer value will be converted to floating point.
*** Warning (IAFP__FLOAT_EXPECTED) ***
124,0.0,1.0,0.0,0.0;   5P   9
  ^

BRACKET.IGS, line 42: Integer found where floating point type was expected.
Integer value will be converted to floating point.
*** Error (IAFP__BAD_COUNT_FIELD) ***
124,0.0,1.0,0.0,0.0;   5P   9
      ^

BRACKET.IGS, line 42: Invalid count field value.
*** Error (IAFP__BAD_COUNT_FIELD) ***
124,0.0,1.0,0.0,0.0;   5P   9
      ^

BRACKET.IGS, line 42: Invalid count field value.
*** Warning (IAFP__PD_LINE_MISMATCH) ***
BRACKET.IGS, line 43: PD line pointer does not point to proper PD card.

*** Warning (IAFP__FLOAT_EXPECTED) ***
124,0.0,1.0,0.0,0.0,   7P   11
  ^

BRACKET.IGS, line 44: Integer found where floating point type was expected.
Integer value will be converted to floating point.
*** Warning (IAFP__FLOAT_EXPECTED) ***
124,0.0,0.0,-1.0,0.0;   7P   12
  ^

BRACKET.IGS, line 45: Integer found where floating point type was expected.
Integer value will be converted to floating point.
*** Error (IAFP__BAD_COUNT_FIELD) ***
124,0.0,0.0,-1.0,0.0;   7P   12
      ^

BRACKET.IGS, line 45: Invalid count field value.
*** Error (IAFP__BAD_COUNT_FIELD) ***
124,0.0,0.0,-1.0,0.0;   7P   12
      ^

BRACKET.IGS, line 45: Invalid count field value.
*** Warning (IAFP__PD_LINE_MISMATCH) ***
BRACKET.IGS, line 46: PD line pointer does not point to proper PD card.

*** Warning (IAFP__FLOAT_EXPECTED) ***
124,1.0,0.0,0.0,0.0,   9P   14
  ^

BRACKET.IGS, line 47: Integer found where floating point type was expected.
Integer value will be converted to floating point.
*** Warning (IAFP__FLOAT_EXPECTED) ***
124,0.0,1.0,0.0,0.0;   9P   15
  ^

BRACKET.IGS, line 48: Integer found where floating point type was expected.

Integer value will be converted to floating point.
*** Error (IAFP__BAD_COUNT_FIELD) ***
124,0.0,1.0,0.0,0.0;   9P   15
              ^

BRACKET.IGS, line 48: Invalid count field value.
*** Error (IAFP__BAD_COUNT_FIELD) ***
124,0.0,1.0,0.0,0.0;   9P   15
              ^

BRACKET.IGS, line 48: Invalid count field value.
*** Warning (IAFP__PD_LINE_MISMATCH) ***
BRACKET.IGS, line 49: PD line pointer does not point to proper PD card.

*** Warning (IAFP__FLOAT_EXPECTED) ***
124,-1.0,0.0,0.0,0.0,   11P   17
     ^

BRACKET.IGS, line 50: Integer found where floating point type was expected.
Integer value will be converted to floating point.
*** Warning (IAFP__FLOAT_EXPECTED) ***
124,0.0,1.0,0.0,0.0;   11P   18
     ^

BRACKET.IGS, line 51: Integer found where floating point type was expected.
Integer value will be converted to floating point.
*** Error (IAFP__BAD_COUNT_FIELD) ***
124,0.0,1.0,0.0,0.0;   11P   18
             ^

BRACKET.IGS, line 51: Invalid count field value.
*** Error (IAFP__BAD_COUNT_FIELD) ***
124,0.0,1.0,0.0,0.0;   11P   18
             ^

BRACKET.IGS, line 51: Invalid count field value.
*** Warning (IAFP__PD_LINE_MISMATCH) ***
BRACKET.IGS, line 52: PD line pointer does not point to proper PD card.

*** Warning (IAFP__FLOAT_EXPECTED) ***
124,0.707106,0.408202,-0.577382,0.0,   13P   20
     ^

BRACKET.IGS, line 53: Integer found where floating point type was expected.
Integer value will be converted to floating point.
*** Warning (IAFP__FLOAT_EXPECTED) ***
124,0.0,0.816542,0.577285,0.0;   13P   21
     ^

BRACKET.IGS, line 54: Integer found where floating point type was expected.
Integer value will be converted to floating point.
*** Error (IAFP__BAD_COUNT_FIELD) ***
124,0.0,0.816542,0.577285,0.0;   13P   21
             ^

BRACKET.IGS, line 54: Invalid count field value.
*** Error (IAFP__BAD_COUNT_FIELD) ***

```
124,0.0,0.816542,0.577285,0.0;                                    13P      21
         ^
```

BRACKET.IGS, line 54: Invalid count field value.
*** Warning (IAFP__PD_LINE_MISMATCH) ***
BRACKET.IGS, line 55: PD line pointer does not point to proper PD card.

*** Warning (IAFP__FLOAT_EXPECTED) ***
```
110,6.0,0.0,0.0;                                                  15P      23
  ^
```

BRACKET.IGS, line 56: Integer found where floating point type was expected.
Integer value will be converted to floating point.
*** Error (IAFP__BAD_COUNT_FIELD) ***
```
110,6.0,0.0,0.0;                                                  15P      23
     ^
```

BRACKET.IGS, line 56: Invalid count field value.
*** Warning (IAFP__PD_LINE_MISMATCH) ***
BRACKET.IGS, line 57: PD line pointer does not point to proper PD card.

*** Warning (IAFP__FLOAT_EXPECTED) ***
```
110,0.0,3.366034,0.0;                                             17P      25
  ^
```

BRACKET.IGS, line 58: Integer found where floating point type was expected.
Integer value will be converted to floating point.
*** Error (IAFP__BAD_COUNT_FIELD) ***
```
110,0.0,3.366034,0.0;                                             17P      25
       ^
```

BRACKET.IGS, line 58: Invalid count field value.
*** Warning (IAFP__PD_LINE_MISMATCH) ***
BRACKET.IGS, line 59: PD line pointer does not point to proper PD card.

*** Warning (IAFP__FLOAT_EXPECTED) ***
```
100,-0.813673,-0.589999,-0.813673,-0.589999;                      19P      27
   ^
```

BRACKET.IGS, line 60: Integer found where floating point type was expected.
Integer value will be converted to floating point.
*** Error (IAFP__BAD_COUNT_FIELD) ***
```
100,-0.813673,-0.589999,-0.813673,-0.589999;                      19P      27
                        ^
```

BRACKET.IGS, line 60: Invalid count field value.
*** Warning (IAFP__PD_LINE_MISMATCH) ***
BRACKET.IGS, line 61: PD line pointer does not point to proper PD card.

*** Warning (IAFP__FLOAT_EXPECTED) ***
```
100,3.79673,-0.589999,3.79673,-0.589999;                          21P      29
   ^
```

BRACKET.IGS, line 62: Integer found where floating point type was expected.
Integer value will be converted to floating point.
*** Error (IAFP__BAD_COUNT_FIELD) ***

```
100,3.79673,-0.589999,3.79673,-0.589999;                          21P      29
                                 ^
```

BRACKET.IGS, line 62: Invalid count field value.
*** Warning (IAFP__PD_LINE_MISMATCH) ***
BRACKET.IGS, line 63: PD line pointer does not point to proper PD card.

*** Warning (IAFP__FLOAT_EXPECTED) ***
```
110,4.57173,3.366034,0.0;                                         23P      31
    ^
```

BRACKET.IGS, line 64: Integer found where floating point type was expected.
Integer value will be converted to floating point.
*** Error (IAFP__BAD_COUNT_FIELD) ***
```
110,4.57173,3.366034,0.0;                                         23P      31
                     ^
```

BRACKET.IGS, line 64: Invalid count field value.
*** Warning (IAFP__PD_LINE_MISMATCH) ***
BRACKET.IGS, line 65: PD line pointer does not point to proper PD card.

*** Warning (IAFP__FLOAT_EXPECTED) ***
```
110,-2.41173,3.366034,0.0;                                        25P      33
     ^
```

BRACKET.IGS, line 66: Integer found where floating point type was expected.
Integer value will be converted to floating point.
*** Error (IAFP__BAD_COUNT_FIELD) ***
```
110,-2.41173,3.366034,0.0;                                        25P      33
                      ^
```

BRACKET.IGS, line 66: Invalid count field value.
*** Warning (IAFP__PD_LINE_MISMATCH) ***
BRACKET.IGS, line 67: PD line pointer does not point to proper PD card.

*** Warning (IEVM_BAD_GLB_UNIT_FLAG) ***
The IGES file's Global Unit flag, 32767, is out of range. The Global Unit flag
must be between 1 and 11.

*** Warning (IEVM_BAD_GLB_SCALE) ***
The IGES file's Global Scale was invalid, 0.0000000e+000. The global scale must
be positive and greater than zero.

*** Warning (IEVM_LABEL_NOT_RJ) ***
(DE 1, TF 124:0) DE has an invalid label justification.

Action taken: Label has been right justified.

*** Warning (IEVM_BAD_VECTOR_124) ***
(DE 1, TF 124:0) Entity has a column which is not a unit vector.

Action taken: Unitized all vectors.

*** Warning (IEVM_BAD_DETERM_124) ***
(DE 1, TF 124:0) Entity has an invalid determinant value. Value found was
-0.0080642539. For form 0, the determinate must be 1.0

*** Warning (IEVM_BAD_SIGN_124) ***
(DE 1, TF 124:0) Entity has an invalid determinant sign. Value of determinant
sign must correspond to the form number.

Action taken: Entity's form set to 1

*** Warning (IEVM_BAD_CROSS_PROD_124) ***
(DE 1, TF 124:1) Entity's is not orthagonal.

Action taken: Entity made orthagonal by assuming X and Y are correct.

*** Warning (IEVM_LABEL_NOT_RJ) ***
(DE 3, TF 124:0) DE has an invalid label justification.

Action taken: Label has been right justified.

*** Warning (IEVM_BAD_VECTOR_124) ***
(DE 3, TF 124:0) Entity has a column which is not a unit vector.

Action taken: Unitized all vectors.

*** Warning (IEVM_BAD_DETERM_124) ***
(DE 3, TF 124:0) Entity has an invalid determinant value. Value found was
0.0000000000. For form 0, the determinate must be 1.0

*** Warning (IEVM_BAD_CROSS_PROD_124) ***
(DE 3, TF 124:0) Entity's is not orthagonal.

Action taken: Entity made orthagonal by assuming X and Y are correct.

*** Warning (IEVM_LABEL_NOT_RJ) ***
(DE 5, TF 124:0) DE has an invalid label justification.

Action taken: Label has been right justified.

*** Warning (IEVM_BAD_VECTOR_124) ***
(DE 5, TF 124:0) Entity has a column which is not a unit vector.

Action taken: Unitized all vectors.

*** Warning (IEVM_BAD_DETERM_124) ***
(DE 5, TF 124:0) Entity has an invalid determinant value. Value found was
0.0000000000. For form 0, the determinate must be 1.0

*** Warning (IEVM_LABEL_NOT_RJ) ***
(DE 7, TF 124:0) DE has an invalid label justification.

Action taken: Label has been right justified.

*** Warning (IEVM_BAD_VECTOR_124) ***
(DE 7, TF 124:0) Entity has a column which is not a unit vector.

Action taken: Unitized all vectors.

*** Warning (IEVM_BAD_DETERM_124) ***
(DE 7, TF 124:0) Entity has an invalid determinant value. Value found was
0.0080642539. For form 0, the determinate must be 1.0

*** Warning (IEVM_LABEL_NOT_RJ) ***
(DE 9, TF 124:0) DE has an invalid label justification.

Action taken: Label has been right justified.

*** Warning (IEVM_BAD_VECTOR_124) ***
(DE 9, TF 124:0) Entity has a column which is not a unit vector.

Action taken: Unitized all vectors.

*** Warning (IEVM_BAD_DETERM_124) ***
(DE 9, TF 124:0) Entity has an invalid determinant value. Value found was
0.9999674834. For form 0, the determinate must be 1.0

*** Warning (IEVM_BAD_CROSS_PROD_124) ***
(DE 9, TF 124:0) Entity's is not orthogonal.

Action taken: Entity made orthogonal by assuming X and Y are correct.

*** Warning (IEVM_LABEL_NOT_RJ) ***
(DE 11, TF 124:0) DE has an invalid label justification.

Action taken: Label has been right justified.

*** Warning (IEVM_BAD_VECTOR_124) ***
(DE 11, TF 124:0) Entity has a column which is not a unit vector.

Action taken: Unitized all vectors.

*** Warning (IEVM_BAD_DETERM_124) ***
(DE 11, TF 124:0) Entity has an invalid determinant value. Value found was
-0.9999674834. For form 0, the determinate must be 1.0

*** Warning (IEVM_BAD_SIGN_124) ***

(DE 11, TF 124:0) Entity has an invalid determinant sign. Value of determinant sign must correspond to the form number.

Action taken: Entity's form set to 1

*** Warning (IEVM_BAD_CROSS_PROD_XY_124) ***
(DE 11, TF 124:1) Entity's cross product of X and Y does not equal Z.

Action taken: Z vector recomputed from the cross product of the Y and X.

*** Warning (IEVM_LABEL_NOT_RJ) ***
(DE 13, TF 124:0) DE has an invalid label justification.

Action taken: Label has been right justified.

*** Warning (IEVM_BAD_VECTOR_124) ***
(DE 13, TF 124:0) Entity has a column which is not a unit vector.

Action taken: Unitized all vectors.

*** Warning (IEVM_BAD_DETERM_124) ***
(DE 13, TF 124:0) Entity has an invalid determinant value. Value found was 0.5750424251. For form 0, the determinate must be 1.0

*** Warning (IEVM_BAD_CROSS_PROD_124) ***
(DE 13, TF 124:0) Entity's is not orthagonal.

Action taken: Entity made orthagonal by assuming X and Y are correct.

*** Warning (IEVM_LABEL_NOT_RJ) ***
(DE 15, TF 110:0) DE has an invalid label justification.

Action taken: Label has been right justified.

*** Warning (IEVM_LABEL_NOT_RJ) ***
(DE 17, TF 110:0) DE has an invalid label justification.

Action taken: Label has been right justified.

*** Warning (IEVM_LABEL_NOT_RJ) ***
(DE 19, TF 100:0) DE has an invalid label justification.

Action taken: Label has been right justified.

*** Warning (IEVM_RADII_NOT_EQUAL_100) ***
(DE 19, TF 100:0) Entity's radii are not equal. Start point radius: 1.0093892e+002. Terminate point radius: 4.1425067e-001.

Action taken: Start point moved 5.0262335e+001 units from 1.0000000e+002,
-8.1367300e-001 to 4.9737788e+001, -7.0229498e-001.   Terminate point moved
5.0262335e+001 units from -5.8999900e-001, -8.1367300e-001 to 4.1715713e+001,
-2.7952742e+001.

*** Warning (IEVM_LABEL_NOT_RJ) ***
(DE 21, TF 100:0) DE has an invalid label justification.

Action taken: Label has been right justified.

*** Warning (IEVM_RADII_NOT_EQUAL_100) ***
(DE 21, TF 100:0) Entity's radii are not equal. Start point radius:
9.7144423e+001. Terminate point radius: 5.6398662e+000.

Action taken: Start point moved 4.5752278e+001 units from 1.0000000e+002,
3.7967300e+000 to 5.4294393e+001, 1.7307046e+000.   Terminate point moved
4.5752278e+001 units from -5.8999900e-001, 3.7967300e+000 to -2.9345436e+001,
3.9383185e+001.

*** Warning (IEVM_LABEL_NOT_RJ) ***
(DE 23, TF 110:0) DE has an invalid label justification.

Action taken: Label has been right justified.

*** Warning (IEVM_LABEL_NOT_RJ) ***
(DE 25, TF 110:0) DE has an invalid label justification.

Action taken: Label has been right justified.

*** Warning (IEVM_LABEL_NOT_RJ) ***
(DE 27, TF 116:0) DE has an invalid label justification.

Action taken: Label has been right justified.

===
Start Section:

IGES file from unbounded ANS X3.37 APT geometry definition statements,
and bounded via PC-APT/APTGEN; J.O'BRIEN MYER, version 1.0, 1993.

Global Section:

Parameter Delimiter: ,
Record Delimiter: ;
Sending Product ID: EX2IGS.EXE
File Name: *.IGS
System ID: KELLY AFB TX/TIMCE/EX2IGS.EXE/VER1.0,
Preprocessor Version:

```
Size of Integer:          6
Sgl. Precision Mag:       308
Sgl. Precision Sig:       15
Dbl. Precision Mag:       0
Dbl. Precision Sig:       0
Receiving Product ID:
Model Space Scale:        0.000000
Unit Flag:                32767
Unit String:
# of Line Weights:        51
Maximum Line Width:       0.000100
Creation Date:            Not Specified
Minimum Resolution:       0.000000
Maximum Coordinate:       0.000000
Author:
Organization:
IGES Version Number:      0
Drafting Standard:        0
```

Entity Summary:

Type	Form	Description	Count
100	0	Circular Arc	2
110	0	Line	4
116	0	Point	1
124	0	Transformation Matrix	5
124	1	Negative Determ. Trans. Matrix	2
		Total	14

Translation phase

IGES Entity Summary

Type	Form	Description	Count	Processed	Errors
100	0	Circular Arc	2	2	0
110	0	Line	4	4	0
116	0	Point	1	1	0
124	0	Transformation Matrix	2	0	2
Totals			9	7	2

AutoCAD Entity Summary

```
Entity     Created  Errors
=========  =======  ======
LINE             4       0
POINT            1       0
ARC              2       0

Totals     =======  ======
                 7       0
```
==
Error Summary:

The following message was issued 1 time(s)
IGES file contains numbers with a larger single precision exponent than what is
allowed on this system.

The following message was issued 1 time(s)
IGES file has greater number of significant digits in single precision numbers
than this system.

The following message was issued 13 time(s)
PD line pointer does not point to proper PD card.

The following message was issued 20 time(s)
Integer found where floating point type was expected. Integer value will be
converted to floating point.
The following message was issued 1 time(s)
Extraneous characters follow field.
The following message was issued 20 time(s)
Invalid count field value.
The following message was issued 12 time(s)
Error processing global section field. Field value will be defaulted.
The following message was issued 14 time(s)
DE has an invalid label justification.

The following message was issued 1 time(s)
The IGES file's Global Scale was invalid, %.7e. The global scale must be
positive and greater than zero.

The following message was issued 1 time(s)
The IGES file's Global Unit flag, %d, is out of range. The Global Unit flag
must be between 1 and 11.

The following message was issued 2 time(s)
Entity's radii are not equal. Start point radius: %.7e. Terminate point
radius: %.7e.

The following message was issued 7 time(s)
Entity has an invalid determinant value. Value found was %-10.10f. For form

%d, the determinate must be %-1.1f

The following message was issued 2 time(s)
Entity has an invalid determinant sign. Value of determinant sign must
correspond to the form number.

The following message was issued 7 time(s)
Entity has a column which is not a unit vector.

The following message was issued 1 time(s)
Entity's cross product of X and Y does not equal Z.

The following message was issued 4 time(s)
Entity's is not orthagonal.

Status: 0
Warning: 75
Error: 32
Fatal: 0

Elapsed Time:

Processor: 00:00:02
Clock: 00:00:03
==

9.1.3   Cadkey v5.02 Log File

i:\9346\bracket.igs → i:\9346\bracket.prt
IGES Version: --- Unknown ---
Name: 1
Created By: 7 from 0
Date of Creation: 00/.0/10

Start section:
      IGES file from unbounded ANS X3.37 APT geometry definition statements,
      and bounded via PC-APT/APTGEN; J.O'BRIEN MYER, version 1.0, 1993.

Entity types do not match at PARAMETER index 8
        Found entity type 124, expected type 110

Entity types do not match at PARAMETER index 9
        Found entity type 124, expected type 110

Entity types do not match at PARAMETER index 10
        Found entity type 124, expected type 100

Entity types do not match at PARAMETER index 11
        Found entity type 124, expected type 100

Entity types do not match at PARAMETER index 12
        Found entity type 124, expected type 110

Entity types do not match at PARAMETER index 13
        Found entity type 124, expected type 110

Entity types do not match at PARAMETER index 14
        Found entity type 124, expected type 116

TRANSLATION STATISTICS

Entities Translated:
        7   (124) Transformation Matrix types

Entities Not Translated:
        2   (100) Circular Arc types
        4   (110) Line types
        1   (116) Point type

Special Notes:
        7 Non-orthogonal transformation matrices encountered
        1 Left handed matrices encountered

9.1.4   CHECKmark v1.00 Log

```
****************************************************
*                    Micro                         *
*                 Engineering                       *
*                 SOLUTIONS Inc.                    *
*                                                   *
*                  CHECKMARK                        *
*                 Version  1.00                     *
*                                                   *
*    (C) 1986-1992 Micro Engineering Solutions,Inc. *
*                All Rights Reserved                *
****************************************************
        - - - - - - - - - - - - - - - - - - - - - - -
```

```
         --- HEADER INFORMATION ---
         --------------------------
            IGES FILE    : A:\BRACKET.IGS
         Product Id (sender):          EX2IGS.EXE
         IGES File Name:               *.IGS
         Generating System:           KELLY AFB TX/TIMCE/EX2IGS.EXE/VER1.0,
         Preprocessor Version:        RECVSYS,1.0,1,4HINCH,32767,
         # Bits Integer Representation: 13H930412.130000
         Single Precision Magnitude:  0.0001
         Single Precision Significance: 1000.0
         Double Precision Magnitude:  5HJMYER
         Double Precision Significance: 5HTIMCE
```

****


```
         --------------------------
         --- RUN TIME MESSAGES ---
         --------------------------


ERROR: DIRECTORY/PARAMETER TYPE MISMATCH      110      124
ERROR: CALLED AT "Get Entity" FOR ID      15


ERROR: DIRECTORY/PARAMETER TYPE MISMATCH      110      124
ERROR: CALLED AT "Get Entity" FOR ID      17


ERROR: DIRECTORY/PARAMETER TYPE MISMATCH      100      124
ERROR: CALLED AT "Get Entity" FOR ID      19


ERROR: DIRECTORY/PARAMETER TYPE MISMATCH      100      124
ERROR: CALLED AT "Get Entity" FOR ID      21


ERROR: DIRECTORY/PARAMETER TYPE MISMATCH      110      124
ERROR: CALLED AT "Get Entity" FOR ID      23


ERROR: DIRECTORY/PARAMETER TYPE MISMATCH      110      124
ERROR: CALLED AT "Get Entity" FOR ID      25


ERROR: DIRECTORY/PARAMETER TYPE MISMATCH      116      124
ERROR: CALLED AT "Get Entity" FOR ID      27


         --------------------------
         ---- ENTITY COUNTS -----
         --------------------------


         Totals for SUPPORTED "IGES" entities :
            ARCS                                (100) =      2
```

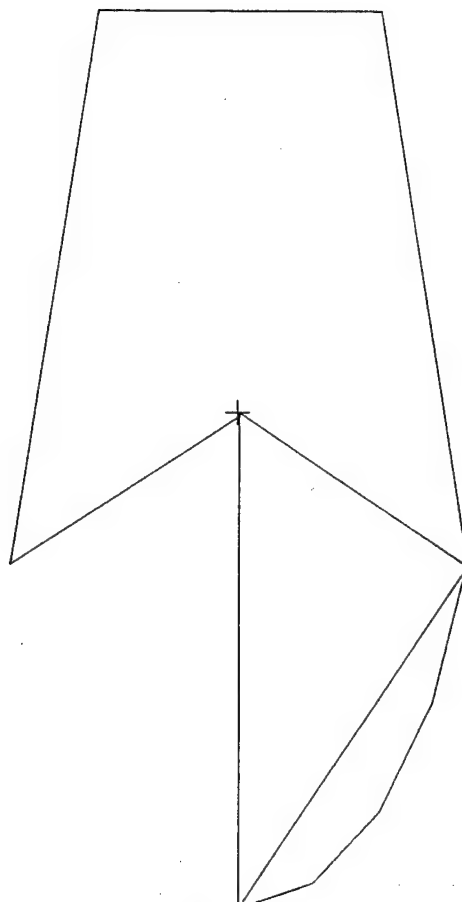LINES   (110) =   4
POINTS   (116) =   1
TRANSFORMATION MATRICES   (124) =   7

NO WIREFRAME ENTITIES TRANSLATED !

9.1.5 Output IGESView - Initial Image

9.1.6 Output IGESVIew - Rotated View

9.1.7 Preview Log

ERROR REPORT FOR FILE   /novell/9346/bracket.igs

>> File record length is 80

Terminate section report :

```
         File Section     #lines
    +------------------------------+
    |            START        2    |
    |           GLOBAL        3    |
    |  DIRECTORY ENTRY       28    |
    |   PARAMETER DATA       34    |
    |        TERMINATE        1    |
    |                              |
    |            TOTAL       68    |
    +------------------------------+
    (Expect 80 X 68 =    5440 bytes)
```

-------------- preliminary format scan complete --------------

>> WARNING: Extra non-blank characters before record delimiter.
      : Field 5 line 2 of GLOBAL section. (System ID)
16HNCSI APTGEN 2.20,32,6,308,15,7HRECVSYS,1.0,1,4HINCH,32767,   G   2

>> WARNING: Integer overflow (replaced with 31).
      : Field 8 line 2 of GLOBAL section. (Max. Exp. for Single)
16HNCSI APTGEN 2.20,32,6,308,15,7HRECVSYS,1.0,1,4HINCH,32767,   G   2
^^^

>> WARNING: Integer overflow (replaced with 31).
      : Field 14 line 2 of GLOBAL section. (Unit Flag)
16HNCSI APTGEN 2.20,32,6,308,15,7HRECVSYS,1.0,1,4HINCH,32767,   G   2
^^^^^

>> WARNING: Invalid transform matrix.
      : Transform form 0 requires an orthogonal matrix.
      : Reading entity #1, DE entry #1 type TRANSFORM MATRIX.
      : Starting at line 1 of PARAMETER DATA section.

>> WARNING: Bad DE Backpointer. (Set to 3)
      : Reading entity #2, DE entry #3 type TRANSFORM MATRIX.
      : Field 0, line 2 of PARAMETER DATA section.
124,0.0,1.0,0.0,0.0,   1P   2
^^^^^^^^

```

```
>> WARNING: Bad DE Backpointer.  (Set to 3)
      : Reading entity #2, DE entry #3 type TRANSFORM MATRIX.
      : Field 0, line 3 of PARAMETER DATA section.
124,0.0,0.0,1.0,0.0;                                                1P      3
^^^^^^^^^

   -----------------------------------------------------------------
>> ERROR: Singular transform matrix. (entity DELETED)
      : Reading entity #2, DE entry #3 type TRANSFORM MATRIX.
      : Starting at line 2 of PARAMETER DATA section.
   -----------------------------------------------------------------
>> WARNING: Bad DE Backpointer.  (Set to 5)
      : Reading entity #3, DE entry #5 type TRANSFORM MATRIX.
      : Field 0, line 3 of PARAMETER DATA section.
124,0.0,0.0,1.0,0.0;                                                1P      3
^^^^^^^^^

   -----------------------------------------------------------------
>> ERROR: Singular transform matrix. (entity DELETED)
      : Reading entity #3, DE entry #5 type TRANSFORM MATRIX.
      : Starting at line 3 of PARAMETER DATA section.
   -----------------------------------------------------------------
>> WARNING: Bad DE Backpointer.  (Set to 7)
      : Reading entity #4, DE entry #7 type TRANSFORM MATRIX.
      : Field 0, line 4 of PARAMETER DATA section.
124,1.0,0.0,0.0,0.0,                                                3P      4
^^^^^^^^^

   -----------------------------------------------------------------
>> WARNING: Bad DE Backpointer.  (Set to 7)
      : Reading entity #4, DE entry #7 type TRANSFORM MATRIX.
      : Field 0, line 5 of PARAMETER DATA section.
124,0.0,0.0,-1.0,0.0,                                               3P      5
^^^^^^^^^

   -----------------------------------------------------------------
>> WARNING: Bad DE Backpointer.  (Set to 7)
      : Reading entity #4, DE entry #7 type TRANSFORM MATRIX.
      : Field 0, line 6 of PARAMETER DATA section.
124,0.0,1.0,0.0,0.0;                                                3P      6
^^^^^^^^^

   -----------------------------------------------------------------
>> ERROR: Singular transform matrix. (entity DELETED)
      : Reading entity #4, DE entry #7 type TRANSFORM MATRIX.
      : Starting at line 4 of PARAMETER DATA section.
   -----------------------------------------------------------------
>> WARNING: Bad DE Backpointer.  (Set to 9)
      : Reading entity #5, DE entry #9 type TRANSFORM MATRIX.
      : Field 0, line 5 of PARAMETER DATA section.
124,0.0,0.0,-1.0,0.0,                                               3P      5
^^^^^^^^^

   -----------------------------------------------------------------
```

```
>> WARNING: Bad DE Backpointer.   (Set to 9)
      : Reading entity #5, DE entry #9 type TRANSFORM MATRIX.
      : Field 0, line 6 of PARAMETER DATA section.
124,0.0,1.0,0.0,0.0;                                                 3P      6
^^^^^^^^

      -------------------------------------------------------------
>> ERROR: Singular transform matrix. (entity DELETED)
      : Reading entity #5, DE entry #9 type TRANSFORM MATRIX.
      : Starting at line 5 of PARAMETER DATA section.
      -------------------------------------------------------------
>> WARNING: Bad DE Backpointer.   (Set to 11)
      : Reading entity #6, DE entry #11 type TRANSFORM MATRIX.
      : Field 0, line 6 of PARAMETER DATA section.
124,0.0,1.0,0.0,0.0;                                                 3P      6
^^^^^^^^

      -------------------------------------------------------------
>> ERROR: Singular transform matrix. (entity DELETED)
      : Reading entity #6, DE entry #11 type TRANSFORM MATRIX.
      : Starting at line 6 of PARAMETER DATA section.
      -------------------------------------------------------------
>> WARNING: Bad DE Backpointer.   (Set to 13)
      : Reading entity #7, DE entry #13 type TRANSFORM MATRIX.
      : Field 0, line 7 of PARAMETER DATA section.
124,-1.0,0.0,0.0,0.0,                                                5P      7
^^^^^^^^

      -------------------------------------------------------------
>> WARNING: Bad DE Backpointer.   (Set to 13)
      : Reading entity #7, DE entry #13 type TRANSFORM MATRIX.
      : Field 0, line 8 of PARAMETER DATA section.
124,0.0,0.0,1.0,0.0,                                                 5P      8
^^^^^^^^

      -------------------------------------------------------------
>> WARNING: Bad DE Backpointer.   (Set to 13)
      : Reading entity #7, DE entry #13 type TRANSFORM MATRIX.
      : Field 0, line 9 of PARAMETER DATA section.
124,0.0,1.0,0.0,0.0;                                                 5P      9
^^^^^^^^

      -------------------------------------------------------------
>> ERROR: Singular transform matrix. (entity DELETED)
      : Reading entity #7, DE entry #13 type TRANSFORM MATRIX.
      : Starting at line 7 of PARAMETER DATA section.
      -------------------------------------------------------------
>> WARNING: Bad DE Backpointer.   (Set to 15)
      : Reading entity #8, DE entry #15 type LINE.
      : Field 0, line 8 of PARAMETER DATA section.
124,0.0,0.0,1.0,0.0,                                                 5P      8
^^^^^^^^

      -------------------------------------------------------------
```

```
>> WARNING: Bad DE Backpointer.   (Set to 17)
     : Reading entity #9, DE entry #17 type LINE.
     : Field 0, line 9 of PARAMETER DATA section.
124,0.0,1.0,0.0,0.0;                                                          5P      9
^^^^^^^^
        -------------------------------------------------------------------
>> WARNING: Bad DE Backpointer.   (Set to 19)
     : Reading entity #10, DE entry #19 type CIRCULAR ARC.
     : Field 0, line 10 of PARAMETER DATA section.
124,-1.0,0.0,0.0,0.0,                                                         7P     10
^^^^^^^^
        -------------------------------------------------------------------
>> WARNING: Bad DE Backpointer.   (Set to 21)
     : Reading entity #11, DE entry #21 type CIRCULAR ARC.
     : Field 0, line 11 of PARAMETER DATA section.
124,0.0,1.0,0.0,0.0,                                                          7P     11
^^^^^^^^
        -------------------------------------------------------------------
>> WARNING: Bad DE Backpointer.   (Set to 23)
     : Reading entity #12, DE entry #23 type LINE.
     : Field 0, line 12 of PARAMETER DATA section.
124,0.0,0.0,-1.0,0.0;                                                         7P     12
^^^^^^^^
        -------------------------------------------------------------------
>> WARNING: Bad DE Backpointer.   (Set to 25)
     : Reading entity #13, DE entry #25 type LINE.
     : Field 0, line 13 of PARAMETER DATA section.
124,0.0,0.0,1.0,0.0,                                                          9P     13
^^^^^^^^
        -------------------------------------------------------------------
>> WARNING: Bad DE Backpointer.   (Set to 27)
     : Reading entity #14, DE entry #27 type POINT.
     : Field 0, line 14 of PARAMETER DATA section.
124,1.0,0.0,0.0,0.0,                                                          9P     14
^^^^^^^^
        -------------------------------------------------------------------
     NEW_VIEW
>> WARNING: No entities found.  No drawing file produced.
        -------------------------------------------------------------------

     13 entities were deleted due to read errors


     Found 6 errors and 24 warnings
```

9.1.8 Output Wiz Worx IGESDRAW

BRACKET

9.1.9 Provided Output File

STKPX2

DOWEL2

LX

P1

LY

DOWEL1

STKNX2